



IN THE CLAIMS:

Please cancel Claims 33,34, 74-77 and 82-92 without prejudice and please add Claims 96-110 as indicated in the listing of claims hereinbelow.

The claims pending in the application read as follows.

- 1-32 (Previously Cancelled)
33. (Currently Cancelled)
34. (Currently Cancelled)
35. (Previously Presented) The method of claim 33, wherein the compound comprises a composition selected from the group consisting of a jatrophane, a jatrophane derivative and a pharmaceutically acceptable salt of a jatrophane or a jatrophane derivative.
36. (Previously Presented) The method of claim 35, wherein the compound comprises a composition comprising a jatrophane ring conformation.
37. (Previously Presented) The method of claim 36, wherein the jatrophane ring containing composition is present in two diastereomeric conformations.
38. (Previously Presented) The method of claim 36, wherein the jatrophane ring containing composition is present in one diastereomeric conformation.
39. (Previously Presented) The method of claim 38, wherein the diastereomeric

conformation is a conformation II.

40. (Previously Presented) The method of claim 36, wherein the composition comprising a jatrophane ring conformation comprises a nicotinate moiety.

41. (Previously Presented) The method of claim 36, wherein the composition comprising a jatrophane ring conformation comprises a benzoate moiety.

42. (Previously Presented) The method of claim 36, wherein the composition comprising a jatrophane ring conformation comprises a iso-butyrate moiety.

43. (Previously Presented) The method of claim 33, wherein the jatrophane derivative comprises an ester derivative.

44. (Previously Presented) The method of claim 33, wherein the jatrophane derivative comprises an acetylated derivative.

45. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 1 position of a moiety selected from the group consisting of a -H and a -OAc.

46. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 2 position of a moiety selected from the

group consisting of a -H, a -OAc and a CH₃.

47. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 3 position of a moiety selected from the group consisting of a -OH, a -OAc, a -OiBu (O(CH₃)₂CHCO), a -OCinn, a -OBz, a -OBzOCH₂CO, and a -PhCH₂CH₂CO₂.

48. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 4 position of an -H.

49. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 5 position of a moiety selected from the group consisting of a -OAc, a -OiBu (O(CH₃)₂CHCO), -OMeBu (OCH₃CH₂CH(CH₃)CO) and a -OAcAc.

50. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 6 position of a moiety comprising an exocyclic double bond.

51. (Previously Presented) The method of claim 36, wherein the jatrophane derivative comprises a substitution in the jatrophane ring carbon 7 position of an -H₂, a -OAc, a -OiBu (O(CH₃)₂CHCO), a -OmeBu (OCH₃CH₂CH(CH₃)CO), a -OPr, a -OCOiPr and a -OCOEt.

52. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 8 position of an -H₂, a -OH, a -OAc, a -OiBu (O(CH₃)₂CHCO), a -OmeBu (OCH₃CH₂CH(CH₃)CO), a -OBz and a -OAng.

53. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 9 position of an -OH, a -OAc (-OCH₃CO), a -OCinn (OPhCHCHCO), a -ONic (C₅H₄NCO₂) and an = O.

54. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 10 position of a -(CH₃)₂.

55. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 11 and carbon 12 positions comprising a double bond between carbon 10 and carbon 11.

56. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 13 position of a -(CH₃).

57. (Previously Presented) The method of claim 36, wherein the jatrophone derivative comprises a substitution in the jatrophone ring carbon 14 position of an -H, an -OH, a -OAc (OCH₃CO) and an = O.

58. (Previously Presented) The method of claim 36, wherein the jatrophone derivative

comprises a substitution in the jatropane ring carbon 15 position of an -OH and a -OAc (OCH₃CO).

59. (Previously Presented) The method of claim 35, wherein the composition comprises a 2,3,5,7,15-pentaacetoxy-9-nicotinoyloxy-14-oxojatropha-6(17), 11*E*-diene (jatropane 1) or a pharmaceutically acceptable salt.

60. (Previously Presented) The method of claim 35, wherein the composition comprises a 2,5,7,8,9,14-hexaacetoxy-3-benzoyloxy-15-hydroxy-jatropha-6(17), 11*E*-diene (jatropane 2) or a pharmaceutically acceptable salt.

61. (Previously Presented) The method of claim 35, wherein the compound comprises a 2,5,14-triacetoxy-3-benzoyloxy-8, 15-dihydroxy-7-isobutyroyloxy-9-nicotinoyloxyjatropha-6(17), 11*E*-diene (jatropane 3) or a pharmaceutically acceptable salt of these.

62. (Previously Presented) The method of claim 35, wherein the compound comprises a 2,5,9,14-tetraacetoxy-3-benzoyloxy-8, 15-dihydroxy-7-isobutyroyloxyjatropha-6(17), 11*E*-diene (jatropane 4) or a pharmaceutically acceptable salt of these.

63. (Previously Presented) The method of claim 35, wherein the compound comprises a 2,5,7,14-tetraacetoxy-3-benzoyloxy-8, 15-dihydroxy-9-nicotinoyloxyjatropha-6(17), 11*E*-diene (jatropane 5) or a pharmaceutically acceptable salt of these.

64. (Previously Presented) The method of claim 35, wherein the compound comprises a 2,5,7,9,14-pentaacetoxy-3-benzoyloxy-8, 15-dihydroxyjatrophane-6(17), 11*E*-diene (jatrophane 6) or a pharmaceutically acceptable salt of these.

65. (Previously Presented) The method of claim 33, wherein the compound comprises a composition selected from the group consisting of a pepluane, a pepluane derivative and a pharmaceutically acceptable salt of a pepluane or a pepluane derivative.

66. (Previously Presented) The method of claim 65, wherein the pepluane derivative comprises an ester derivative.

67. (Previously Presented) The method of claim 65, wherein the pepluane derivative comprises an acetylated derivative.

68. (Previously Presented) The method of claim 65, wherein the pepluane derivative comprises a substitution in a position in a pepluane skeleton selected from the group consisting of

an -H₂ or an -OAc (-OCH₃CO) at a carbon 1 position;

a -CH₃ and an -H at a carbon 2 position;

an -OBz at a carbon 3 position;

an -H at a carbon 4 position;

an -OAc (-OCH₃CO) at a carbon 5 position;

a -CH₃ or an -CH₂OAc at a carbon 6 position;

an -H₂ at a carbon 7 position;
 an -OAc (-OCH₃CO) or a double bond to C12 at a carbon 8 position;
 an -OAc (-OCH₃CO) or a double bond to C18 at a carbon 9 position;
 a -CH₃ and an -OAc (-OCH₃CO), a -CH₃, or a double bond to C11 at a carbon
 10 position;
 an -H₂ or a double bond to C10 at a carbon 11 position;
 an -H or a double bond to C8 at a carbon 12 position;
 a -CH₃ at a carbon 13 position;
 an -OAc (-OCH₃CO) at a carbon 14 position;
 an -OH at a carbon 15 position; and
 an -H or an -H₂ at a carbon 18 position.

69. (Previously Presented) The method of claim 65, wherein the pepluane comprises a composition selected from the group consisting of a 5,8,9,10,14-pentaacetoxy-3-benzoyloxy-15-hydroxy-pepluane, a derivative of a 5,8,9,10,14-pentaacetoxy-3-benzoyloxy-15-hydroxy-pepluane and a pharmaceutically acceptable salt of a 5,8,9,10,14-pentaacetoxy-3-benzoyloxy-15-hydroxy-pepluane.

70. (Previously Presented) The method of claim 33, wherein the compound comprises a composition selected from the group consisting of a paraliane, a paraliane derivative and a pharmaceutically acceptable salt of a paraliane or a paraliane derivative.

71. (Previously Presented) The method of claim 70, wherein the paraliane derivative

comprises an ester derivative.

72. (Previously Presented) The method of claim 70, wherein the paraliane derivative comprises an acetylated derivative.

73. (Previously Presented) The method of claim 70, wherein the paraliane derivative comprises a substitution in a position in a paraliane skeleton selected from the group consisting of

- an -H, an -H₂ or an -OAc (-OCH₃CO) at a carbon 1 position;
- a -CH₃ and an -H or a -CH₃ and an -OAc (-OCH₃CO) at a carbon 2 position;
- an -OBz at a carbon 3 position;
- an -H at a carbon 4 position; an -OAc (-OCH₃CO) at a carbon 5 position;
- a -CH₃ or a -CH₂OAc at a carbon 6 position;
- an -H₂ at a carbon 7 position;
- an -H or an -OAc (-OCH₃CO) at a carbon 8 position;
- an = O at a carbon 9 position;
- a -(CH₃)₂ at a carbon 10 position;
- an -H₂ at a carbon 11 position;
- an -H at a carbon 12 position;
- a -CH₃ at a carbon 13 position;
- an -OAc (-OCH₃CO) at a carbon 14 position; and,
- an -OH at a carbon 15 position.

74. (Currently Cancelled)

75. (Currently Cancelled)

76. (Currently Cancelled)

77. (Currently Cancelled)

78. (Previously Presented) A method of stimulating the immune system, the method comprising administering to the subject an effective amount of at least two compounds, wherein the two compounds are derived from an extract from the sap of a species of *Euphorbia*, wherein the compounds

(a) are extractable from the *Euphorbia* sap in the presence of about 95% v/w ethanol,

(b) have cell inhibiting or retarding activity which is neither destroyed by acetone nor by heating at about 95°C for about 15 minutes, and

(c) are capable of inhibiting the growth of at least one cell line selected from the group consisting of MM96L, MM229, MM220, MM537, MM2058, HeLa, B16, LIM1215, A549, MCF7, MCC16, and Colo16.

79. (Previously Presented) The method of Claim 78, wherein the compounds are selected from the group consisting of a jatrophane, a jatrophane derivative, a pharmaceutically acceptable salt of a jatrophane, a pepluane, a pepluane derivative, a pharmaceutically acceptable salt of a pepluane, a paraliane, a paraliane derivative, a pharmaceutically

acceptable salt of a paraliane, an angeloyl-substituted ingenane, an angeloyl-substituted ingenane derivative and a pharmaceutically acceptable salt of an angeloyl-substituted ingenane.

80. (Previously Presented) The method of Claim 78, wherein the compounds are selected from the group consisting of a 5,8,9,10,14-pentaacetoxy-3-benzoyloxy-15-hydroxyepipluane (epipluane), a derivative of a 5,8,9,10,14-pentaacetoxy-3-benzoyloxy-15-hydroxyepipluane, a 2,3,5,7,15-pentaacetoxy-9-nicotinoyloxy-14-oxojatropha-6(17),11E-diene (jatrophane 1), a derivative of a 2,3,5,7,15-pentaacetoxy-9-nicotinoyloxy-14-oxojatropha-6(17),11E-diene, a 2,5,7,8,9,14-hexaacetoxy-3-benzoyloxy-15-hydroxy-jatropha-6(17),11E0diene (jatrophane 2), a derivative of a 2,5,7,8,9,14-hexaacetoxy-3-benzoyloxy-15-hydroxy-jatropha-6(17),11E-diene, a 2,5,14-triacetoxy-3-benzoyloxy-8,15-dihydroxy-7-isobutyroxyloxy-9-nicotinoyloxy-jatropha-6(17),11E-diene (jatrophane 3), a derivative of a 2,5,14-triacetoxy-3-benzoyloxy-8,15-dihydroxy-7-isobutyroxyloxy-9-nicotinoyloxy-jatropha-6(17),11E-diene, a 2,5,9,14-tetraacetoxy-3-benzoyloxy-8,15-dihydroxy-7-isobutyroxyloxyjatrophane-6(17),11E-diene (jatrophane 4), a derivative of a 2,5,9,14-tetraacetoxy-3-benzoyloxy-8,15-dihydroxy-7-isobutyroxyloxyjatrophane-6(17),11E-diene, a 2,5,7,14-tetraacetoxy-3-benzoyloxy-8,15-dihydroxy-9-nicotinoyloxyjatrophane-6(17),11E-diene (jatrophane 5), a derivative of a 2,5,7,14-tetraacetoxy-3-benzoyloxy-8,15-dihydroxy-9-nicotinoyloxyjatrophane-6(17),11E-diene, a 2,5,7,9,14-pentaacetoxy-3-benzoyloxy-8,15-dihydroxyjatrophane-6(17),11E-diene (jatrophane 6), a derivative of a 2,5,7,9,14-pentaacetoxy-3-benzoyloxy-8,15-dihydroxyjatrophane-6(17),11E-diene, a 20-O-acetyl-ingenol-3-angelate, a derivative of a 20-O-acetyl-ingenol-3-angelate and pharmaceutically acceptable salt of one or any combination of these compounds.

81. (Previously Presented) The method of Claim 78, wherein the compounds are provided in the form of a chemical fraction obtained from the sap of a species of *Euphorbia*.
82. (Currently Cancelled)
83. (Currently Cancelled)
84. (Currently Cancelled)
85. (Currently Cancelled)
86. (Currently Cancelled)
87. (Currently Cancelled)
88. (Currently Cancelled)
89. (Currently Cancelled)
90. (Currently Cancelled)
91. (Currently Cancelled)

92. (Currently Cancelled)

93. (Previously Presented) A method of recruiting an immune cell to a region of application of a compound, the method comprising administering an effective amount of the compound to the region,

wherein the compound is derived from an extract from the sap of a species of *Euphorbia*, wherein the compound

(a) is extractable from the *Euphorbia* sap in the presence of about 95% v/w ethanol,

(b) has cell inhibiting or retarding activity which is neither destroyed by acetone nor by heating at about 95°C for about 15 minutes, and

(c) is capable of inhibiting the growth of at least one cell line selected from the group consisting of MM96L, MM229, MM220, MM537, MM2058, HeLa, B16, LIM1215, A549, MCF7, MCC16 and Colo16.

94. (Previously Presented) The method of Claim 93, wherein a natural killer cell is recruited to the region of application of the compound.

95. (Previously Presented) The method of Claim 93, wherein a T cell is recruited to the region of application of the compound.

Please add new Claims 96-110 as follows:

96. (New) A method for stimulating the immune system in a human subject, the method comprising administering to the human subject in need thereof a therapeutically effective amount of at least one isolated compound selected from the group consisting of an angeloyl-substituted ingenane or salt thereof obtained from the sap of a *Euphorbia* species and an active derivative of an angeloyl-substituted ingenane or salt thereof obtained from the sap of a *Euphorbia* species, wherein said active derivative exhibits the same activity as said angeloyl-substituted ingenane.
97. (New) The method of claim 96, wherein the *Euphorbia* species is *Euphorbia peplus*.
98. (New) The method of claim 96, wherein the *Euphorbia* species is *Euphorbia drummondii*.
99. (New) The method of claim 96, wherein the *Euphorbia* species is *Euphorbia hirta*.
100. (New) The method of any one of Claims 96 to 99, wherein the derivative of an angeloyl substituted ingenane obtained from the sap of *Euphorbia peplus* is an acetylated derivative.

101. (New) The method of any one of Claims 96 to 99, wherein the derivative of an angeloyl-substituted ingenane obtained from the sap of *Euphorbia drummondii* is an acetylated derivative.
102. (New) The method of any one of Claims 96 to 99, wherein the derivative of an angeloyl substituted ingenane obtained from the sap of *Euphorbia hirta* is an acetylated derivative.
103. (New) The method of any one of Claims 96 to 99, wherein at least one compound is selected from the group consisting of a 20-O-acetyl-ingenol-3-angelate and an ester derivative of a 20-O-acetyl-ingenol-3-angelate.
104. (New) The method of any one of Claims 96 to 99, wherein the compound comprises a pharmaceutically acceptable salt of the 20-O-acetyl-ingenol-3-angelate and the 20-O-acetyl-ingenol-3-angelate ester derivative.
105. (New) The method of any one of Claims 96 to 99, wherein the compound is obtained from by the process of extracting said sap with 95% v/v ethanol, discarding a solid fraction

and retaining a soluble fraction.

106. (New) The method of any one of Claims 96 to 99, wherein the compound induces T cells to proliferate.

107. (New) The method of any one of Claims 96 to 99, wherein the compound induces the expression of G-CSF.

108. (New) The method of any one of Claims 96 to 99, wherein the compound induces the expression of major histocompatibility complex (MHC) molecules.

109. (New) The method of any one of Claims 96 to 99, wherein the compound recruits a natural killer cell to a region of application of the compound.

110. (New) The method of any one of Claims 96 to 99, wherein the compound is provided in the form of a composition comprising a pharmaceutically- or cosmetically-acceptable carrier.